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Notice of Allowability

Application No.

09/468,138

Examiner

V. Paul Harper

Applicant(s)

PETERS ET AL.

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment of 8/9/04 and interview of 10/20/04.
2. ☒ The allowed claim(s) is/are 9-17, 29-34, 37 and 38.
3. ☒ The drawings filed on 12/21/99 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Vijay Chawan
10/28/04
VIJAY CHAWAN
PRIMARY EXAMINER
Paper No./Mail Date 20041021

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert D. McCutchen on 10/20/04.

(beginning of examiner's amendment)

28. (Canceled).
29. (Currently Amended) A speech recognition system comprising:
 - an input for receiving an input signal indicative of a spoken utterance that is indicative of at least one speech element;
 - a first processing unit coupled to said input operative for processing the input signal to derive from a speech recognition dictionary at least one speech model associated to a given speech element that constitutes a potential match to the at least one speech element, and wherein said first processing unit is operative for generating a speaker specific speech model derived on the basis of the input


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- signal, the speaker specific speech model being indicative of the acoustic characteristics of the at least one speech element;
- second processing unit coupled to said first processing unit for generating, using a predefined weighting constraint, a modified version of the at least one speech model on the basis of the input signal;
 - a third processing unit coupled to said second processing unit for processing the input signal on the basis of the modified version of the at least one speech model to generate a recognition result indicative of whether the modified version of the at least one speech model constitutes a match to the input signal;
 - an output for releasing signal indicative of the recognition result; and
- wherein said modified version of the at least one speech model is indicative of a complex speech model associated to the given speech element, and wherein said second processing unit comprises:
- coupling member for allowing data exchange between the first processing unit and the second processing unit, said coupling member being suitable for receiving the speaker specific speech model derived from the input signal;
 - a model group associated to the given speech element, said model group comprising a plurality of speech models, each speech model of said plurality of speech models being a different representation of the given speech element, said model group comprising two sets of speech models namely a first set having speech models of a first type and a second set having speech models of a

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second type, each speech model of a first type in said first set being associated to a speech model of the second type in the second set;

- a functional unit coupled to the coupling member for:
 - a) processing the speaker specific speech model and the model group to generate a hybrid speech model associated to the given speech element, said hybrid speech model being a weighted combination of speech models of the first type in said plurality of speech models effected on the basis of the speaker specific speech model;
 - b) processing the hybrid speech model to generate the complex speech model associated to the given speech element, said complex speech model being a combination of speech models of the second type in said plurality of speech models;
- an output coupling member for allowing data exchange between the second processing unit and the third processing unit, said coupling member being suitable for releasing a signal indicative of the complex speech model associated to the given speech element.


10/28/04
VIJAY CHAWAN
PRIMARY EXAMINER

(end of examiner's amendment)